BASIS FOR THE AMENDMENT

The claims have been amended as supported by the claims as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-20 will now be active in this application.

INTERVIEW SUMMARY

Applicants wish to thank Examiner Examiner Kilpatrick and his supervisor for the helpful and courteous discussion with Applicants' Representative on August 25, 2009. During this discussion it was noted that Hirsch and Ling are not in the same filed of endeavor.

Further, the Examiners noted that clarification of the claims may help overcome the rejections.

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The objection to the abstract is obviated by the amendment of the abstract.

The objection to Claim 18 is obviated by the amendment of the claims.

The rejection of Claims 14-15 under 35 U.S.C. § 112, 2nd paragraph, is obviated by the amendment of the claims.

The rejection of Claims 1-10 and 13-20 under 35 U.S.C. § 103(a) over US 2,488,406 (Hirsch) in view of US 3,012,861 (Ling) and the rejection of Claims 11-12 under 35 U.S.C. § 103(a) over US 2,488,406 (Hirsch) in view of US 3,012,861 (Ling) in further view of US 4,421,843 (Teague) are respectfully traversed.

The references (US 2,488,406, US 3,012,861 and US 4,421,843) are not of particular relevance as they fail to disclose or suggest a device for the thermal decomposition of a volatile compound, and for deposition of particles which are formed by the decomposition, comprising (a) a pressure vessel, **(b) at least one reaction tube located inside the pressure vessel such that, an open end of the reaction tube extends into the pressure vessel** and **an other end of the reaction tube is located outside the pressure vessel** and is provided with a gas feed, wherein a longitudinal axis of the reaction tube is oriented in the direction of gravity and parallel to a longitudinal axis of the pressure vessel, and wherein the reaction tube can be heated on a gas inlet side and cooled on a gas outlet side, wherein the pressure vessel, in its

lower part, comprises a collection cone, wherein the open end of the at least one reaction tube extends into a gas space of the collection cone, wherein the collection cone is connected to an outlet lock for particles, and **(c) a gas outlet unit located mainly inside the pressure vessel, the gas outlet unit comprising a gas guide, a gas inlet region, wherein the gas inlet region is in communication with the gas space of the collection cone, a filter system, and a gas outlet, which is located outside the pressure vessel.**

In particular, there is no disclosure or suggestion of **at least one reaction tube located inside the pressure vessel such that, an open end of the reaction tube extends into the pressure vessel** and **an other end of the reaction tube is located outside the pressure vessel** and **(c) a gas outlet unit located mainly inside the pressure vessel, the gas outlet unit comprising a gas guide, a gas inlet region, wherein the gas inlet region is in communication with the gas space of the collection cone, a filter system, and a gas outlet, which is located outside the pressure vessel.**

In addition, it is improper to combine Hirsch with Ling as they are in different fields of endeavor. In addition, Applicants wish to draw the Examiner's attention to pages 1 and 2 of the specification discussing the drawbacks of previously known processes and that these drawbacks are overcome with the present invention:

> "It has long been known to produce high-purity silicon by gas phase pyrolysis of monosilane (cf. inter alia US 4 676 967, DE 33 11 650, DE 752 280, DE 11 80 346). A problem which all these processes have in common is that of producing ultrafine particles as efficiently as possible and then separating them from a gas and collecting them. The process has recently been developed further at the University of Duisburg (Wiggers, Starke, Roth: "Silicon Particle Formation by Pyrolysis of Silane in a Hot wall Gasphase Reactor", Chem. Eng. Technol. 24 (2001) 3, pages 261 to 264).
>
> Starting from monosilane, pulverulent silicon is produced in accordance with the following general reaction equation

$SiH_4 \rightarrow Si + 2H_2$

The installations which are suitable for this process are generally constructed as follows: the pyrolysis reactor comprises a vertically arranged tube, optionally made from SiSiC or quartz glass. It can be heated in the upper half and is installed inside a cooled special steel casing. To prevent caking on the wall of the tube, this region is purged with hydrogen from above. The monosilane is injected, in pure form or diluted with a suitable gas, from above and is decomposed in the hot zone. The particles which are formed are agglomerated further down the tube and are cooled together with the hydrogen formed from the reaction and the hydrogen used for purging. The silicon and the hydrogen leave the tube in the lower region. Then, 100% nitrogen is blown in in order to cool the hydrogen/solids mixture and to allow the solids to be conveyed pneumatically with greater success. The silicon is in this way passed through a pipeline into a dust filter, where it is collected and separated from the hydrogen by metal filter candles which can be cleaned pneumatically. The hydrogen leaves the filter and is generally passed to an off-gas incineration stage. The silicon is collected in a trapping vessel and discharged.

A drawback of an arrangement of this type is the conveying of the silicon dust, at the outlet of the reactor tube, through a line which is oriented substantially horizontally or upward. This often leads to the pipe becoming blocked. A further drawback is the cooling by a quench, since a further gas has to be added here. Furthermore, the capacity of a single tube is limited and therefore the outlay on apparatus entailed by the need for parallel individual installations is considerable. Furthermore, blockages occurred again and again at the discharge from the filter casing. A further drawback is the fact that the silicon which is formed is contaminated by abrasion of the special steel.

It was an object of the invention to provide a possible way of alleviating the abovementioned drawbacks."

Emphasis added.

Therefore, The rejection of Claims 1-10 and 13-20 under 35 U.S.C. § 103(a) over US 2,488,406 (Hirsch) in view of US 3,012,861 (Ling) and the rejection of Claims 11-12 under 35 U.S.C. § 103(a) over US 2,488,406 (Hirsch) in view of US 3,012,861 (Ling) in further view of US 4,421,843 (Teague) are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

In regard to the Examiner's request to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made, Applicants' Representative is confirming with the Applicants that all claims were and are commonly owned. Applicants' Representative will update the Examiner in the event that the claims are not commonly owned.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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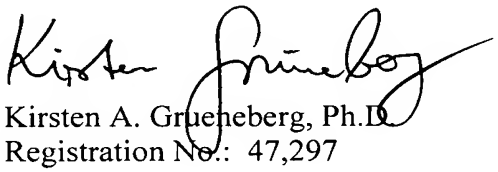

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